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NEWS	1		Web Page URLs for STN Seminar Schedule - N. America
NEWS	2		"Ask CAS" for self-help around the clock
NEWS	3	Jul 12	BEILSTEIN enhanced with new display and select options, resulting in a closer connection to BABS
NEWS	4	Jul 30	BEILSTEIN on STN workshop to be held August 24 in conjunction with the 228th ACS National Meeting
NEWS	5	AUG 02	IFIPAT/IFIUDB/IFICDB reloaded with new search and display fields
NEWS	6	AUG 02	CAplus and CA patent records enhanced with European and Japan Patent Office Classifications
NEWS	7	AUG 02	The Analysis Edition of STN Express with Discover! (Version 7.01 for Windows) now available
NEWS	8	AUG 04	Pricing for the Save Answers for SciFinder Wizard within STN Express with Discover! will change September 1, 2004
NEWS	9	AUG 27	BIOCOMMERCE: Changes and enhancements to content coverage
NEWS	10	AUG 27	BIOTECHABS/BIOTECHDS: Two new display fields added for legal status data from INPADOC
NEWS	11	SEP 01	INPADOC: New family current-awareness alert (SDI) available
NEWS	12	SEP 01	New pricing for the Save Answers for SciFinder Wizard within STN Express with Discover!
NEWS	13	SEP 01	New display format, HITSTR, available in WPIDS/WPINDEX/WPIX
NEWS	14	SEP 14	STN Patent Forum to be held October 13, 2004, in Iselin, NJ

NEWS EXPRESS	JULY 30 CURRENT WINDOWS VERSION IS V7.01, CURRENT MACINTOSH VERSION IS V6.0c(ENG) AND V6.0Jc(JP), AND CURRENT DISCOVER FILE IS DATED 11 AUGUST 2004
NEWS HOURS	STN Operating Hours Plus Help Desk Availability
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FILE 'HOME' ENTERED AT 11:02:14 ON 25 SEP 2004

=> index bioscience
FILE 'DRUGMONOG' ACCESS NOT AUTHORIZED
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FULL ESTIMATED COST                                    1.26       1.26

INDEX 'ADISCTI, ADISINSIGHT, ADISNEWS, AGRICOLA, AQUALINE, ANABSTR, ANTE,
       AQUASCI, BIOBUSINESS, BIOCOMMERCE, BIOENG, BIOSIS, BIOTECHABS, BIOTECHDS,
       BIOTECHNO, CABA, CANCERLIT, CAPLUS, CEABA-VTB, CEN, CIN, CONFSCI, CROPB,
       CROPU, DISSABS, DDFB, DDFU, DGENE, ...' ENTERED AT 11:05:42 ON 25 SEP 2004

74 FILES IN THE FILE LIST IN STNINDEX

Enter SET DETAIL ON to see search term postings or to view
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=> s sialyltransferase
          9   FILE ADISCTI
          1   FILE ADISINSIGHT
         37   FILE AGRICOLA
         20   FILE ANABSTR
          8   FILE AQUASCI
         11   FILE BIOBUSINESS
         13   FILE BIOCOMMERCE
         48   FILE BIOENG
       1854   FILE BIOSIS
        192   FILE BIOTECHABS
        192   FILE BIOTECHDS
        855   FILE BIOTECHNO
        101   FILE CABA
        693   FILE CANCERLIT
       2212   FILE CAPLUS
         40   FILE CEABA-VTB
          2   FILE CEN
          4   FILE CIN
         58   FILE CONFSCI
         95   FILE DISSABS
         24   FILE DDFB
         46   FILE DDFU
        793   FILE DGENE
         24   FILE DRUGB
         52   FILE DRUGU
          4   FILE EMBAL
       1586   FILE EMBASE
        635   FILE ESBIOBASE
         30   FILE FEDRIP
          5   FILE FROSTI
          5   FILE FSTA
       1321   FILE GENBANK
 43 FILES SEARCHED...
        136   FILE IFIPAT
        264   FILE JICST-EPLUS
        417   FILE LIFESCI
       1909   FILE MEDLINE
          2   FILE NIOSHTIC
          5   FILE NTIS
          1   FILE OCEAN
        635   FILE PASCAL
          1   FILE PHIN
         10   FILE PROMT
          2   FILE PROUSDDR
       1679   FILE SCISEARCH
        551   FILE TOXCENTER
        671   FILE USPATFULL
         18   FILE USPAT2
        107   FILE WPIDS
          2   FILE WPIFV
        107   FILE WPINDEX
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50 FILES HAVE ONE OR MORE ANSWERS, 74 FILES SEARCHED IN STNINDEX

L1 QUE SIALYLTRANSFERASE

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F2	1909	MEDLINE
F3	1854	BIOSIS
F4	1679	SCISEARCH
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F6	1321	GENBANK
F7	855	BIOTECHNO
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F9	693	CANCERLIT
F10	671	USPATFULL
F11	635	ESBIOBASE
F12	635	PASCAL
F13	551	TOXCENTER
F14	417	LIFESCI
F15	264	JICST-EPLUS
F16	192	BIOTECHABS
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F21	101	CABA
F22	95	DISSABS
F23	58	CONFSCI
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F25	48	BIOENG
F26	46	DDFU
F27	40	CEABA-VTB
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F34	13	BIOCOMMERCE
F35	11	BIOBUSINESS
F36	10	PROMT
F37	9	ADISCTI
F38	8	AQUASCI
F39	5	FROSTI
F40	5	FSTA
F41	5	NTIS
F42	4	CIN
F43	4	EMBAL
F44	2	CEN
F45	2	NIOSHTIC
F46	2	PROUSDDR
F47	2	WPIFV
F48	1	ADISINSIGHT
F49	1	OCEAN
F50	1	PHIN

=> file f1-f5, f7, f9-f13

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	1.14	2.40

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=> s l1 and (ST3Gal I)
L2 337 L1 AND (ST3GAL I)

=> s l2 and sialyl?
L3 337 L2 AND SIALYL?

=> s l3 and sialylat?
L4 175 L3 AND SIALYLAT?

=> s l4 and (large-scale or commercial scale)
1 FILES SEARCHED...
L5 23 L4 AND (LARGE-SCALE OR COMMERCIAL SCALE)

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=> dup rem l5
PROCESSING COMPLETED FOR L5
L6 23 DUP REM L5 (0 DUPLICATES REMOVED)

=> d l6 ibib ab 1-23

L6 ANSWER 1 OF 23 USPATFULL on STN

ACCESSION NUMBER: 2004:184970 USPATFULL

TITLE: Glycoconjugation methods and proteins/peptides produced by the methods

INVENTOR(S): DeFrees, Shawn, North Wales, PA, UNITED STATES
Zopf, David, Wayne, PA, UNITED STATES
Bayer, Robert, San Diego, CA, UNITED STATES
Bowe, Caryn, Doylestown, PA, UNITED STATES
Hakes, David, Willow Grove, PA, UNITED STATES
Chen, Xi, Lansdale, PA, UNITED STATES

PATENT ASSIGNEE(S): Neose Technologies, Inc. (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2004142856	A1	20040722
APPLICATION INFO.:	US 2003-410913	A1	20030409 (10)

RELATED APPLN. INFO.: Continuation-in-part of Ser. No. US 2003-360779, filed on 19 Feb 2003, PENDING Continuation-in-part of Ser. No. US 2003-360770, filed on 6 Jan 2003, PENDING Continuation-in-part of Ser. No. US 2002-287994, filed on 5 Nov 2002, PENDING Continuation of Ser. No. WO 2002-US32263, filed on 9 Oct 2002, PENDING

	NUMBER	DATE
PRIORITY INFORMATION:	US 2002-407527P	20020828 (60)
	US 2002-407527P	20020828 (60)
	US 2002-404249P	20020816 (60)
	US 2002-396594P	20020717 (60)
	US 2002-391777P	20020625 (60)
	US 2002-387292P	20020607 (60)
	US 2001-334301P	20011128 (60)
	US 2001-334233P	20011128 (60)
	US 2001-334692P	20011121 (60)
	US 2001-328523P	20011010 (60)

DOCUMENT TYPE: Utility

FILE SEGMENT: APPLICATION

LEGAL REPRESENTATIVE: MORGAN, LEWIS & BOCKIUS LLP, 1701 MARKET STREET, PHILADELPHIA, PA, 19103-2921

NUMBER OF CLAIMS: 88

EXEMPLARY CLAIM: 1

NUMBER OF DRAWINGS: 497 Drawing Page(s)

LINE COUNT: 16544

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The invention includes methods and compositions for remodeling a peptide molecule, including the addition or deletion of one or more glycosyl groups to a peptide, and/or the addition of a modifying group to a peptide.

L6 ANSWER 2 OF 23 USPATFULL on STN

ACCESSION NUMBER: 2004:178391 USPATFULL

TITLE: Remodeling and glycoconjugation of peptides

INVENTOR(S): DeFrees, Shawn, North Wales, PA, UNITED STATES
Zopf, David, Wayne, PA, UNITED STATES
Bayer, Robert, San Diego, CA, UNITED STATES
Bowe, Caryn, Doylestown, PA, UNITED STATES
Hakes, David, Willow Grove, PA, UNITED STATES
Chen, Xi, Lansdale, PA, UNITED STATES

PATENT ASSIGNEE(S): Neose Technologies, Inc. (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2004137557	A1	20040715
APPLICATION INFO.:	US 2002-287994	A1	20021105 (10)

RELATED APPLN. INFO.: Continuation of Ser. No. WO 2002-US32263, filed on 9 Oct 2002, PENDING

	NUMBER	DATE
PRIORITY INFORMATION:	US 2002-407527P	20020828 (60)
	US 2002-404249P	20020816 (60)
	US 2002-396594P	20020717 (60)
	US 2002-391777P	20020625 (60)
	US 2002-387292P	20020607 (60)
	US 2001-334301P	20011128 (60)
	US 2001-334233P	20011128 (60)

DOCUMENT TYPE: Utility
FILE SEGMENT: APPLICATION
LEGAL REPRESENTATIVE: MORGAN, LEWIS & BOCKIUS LLP, 1701 MARKET STREET, PHILADELPHIA, PA, 19103-2921
NUMBER OF CLAIMS: 447
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 345 Drawing Page(s)
LINE COUNT: 16205
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB The invention includes methods and compositions for remodeling a peptide molecule, including the addition or deletion of one or more glycosyl groups to a peptide, and/or the addition of a modifying group a peptide.

L6 ANSWER 3 OF 23 USPATFULL on STN
ACCESSION NUMBER: 2004:172476 USPATFULL
TITLE: Glycopegylation methods and proteins/peptides produced by the methods
INVENTOR(S): DeFrees, Shawn, North Wales, PA, UNITED STATES
Zopf, David, Wayne, PA, UNITED STATES
Bayer, Robert, San Diego, CA, UNITED STATES
Bowe, Caryn, Doylestown, PA, UNITED STATES
Hakes, David, Willow Grove, PA, UNITED STATES
Chen, Xi, Lansdale, PA, UNITED STATES
PATENT ASSIGNEE(S): Neose Technologies, Inc. (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2004132640	A1	20040708
APPLICATION INFO.:	US 2003-411012	A1	20030409 (10)

RELATED APPLN. INFO.: Continuation-in-part of Ser. No. WO 2002-US32263, filed on 9 Oct 2002, PENDING

	NUMBER	DATE
PRIORITY INFORMATION:	US 2002-407527P	20020828 (60)
	US 2002-404249P	20020816 (60)
	US 2002-396594P	20020717 (60)
	US 2002-391777P	20020625 (60)
	US 2002-387292P	20020607 (60)

DOCUMENT TYPE: Utility
FILE SEGMENT: APPLICATION
LEGAL REPRESENTATIVE: MORGAN, LEWIS & BOCKIUS LLP, 1701 MARKET STREET, PHILADELPHIA, PA, 19103-2921
NUMBER OF CLAIMS: 77
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 497 Drawing Page(s)
LINE COUNT: 19255
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB The invention includes methods and compositions for remodeling a peptide molecule, including the addition or deletion of one or more glycosyl groups to a peptide, and/or the addition of a modifying group to a peptide.

L6 ANSWER 4 OF 23 USPATFULL on STN
ACCESSION NUMBER: 2004:165351 USPATFULL
TITLE: Follicle stimulating hormone: remodeling and glycoconjugation of FSH
INVENTOR(S): DeFrees, Shawn, North Wales, PA, UNITED STATES
Zopf, David, Wayne, PA, UNITED STATES
Bayer, Robert, San Diego, CA, UNITED STATES
Bowe, Caryn, Doylestown, PA, UNITED STATES
Hakes, David, Willow Grove, PA, UNITED STATES
Chen, Xi, Lansdale, PA, UNITED STATES
PATENT ASSIGNEE(S): Neose Technologies, Inc. (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2004126838	A1	20040701
APPLICATION INFO.:	US 2003-410997	A1	20030409 (10)

RELATED APPLN. INFO.: Continuation-in-part of Ser. No. US 2003-360779, filed on 19 Feb 2003, PENDING Continuation-in-part of Ser. No. US 2003-360770, filed on 6 Jan 2003, PENDING Continuation-in-part of Ser. No. US 2002-287994, filed on 5 Nov 2002, PENDING Continuation of Ser. No. WO 2002-US32263, filed on 9 Oct 2002, PENDING

	NUMBER	DATE
PRIORITY INFORMATION:	US 2002-407527P	20020828 (60)
	US 2002-404249P	20020816 (60)
	US 2002-396594P	20020717 (60)
	US 2002-391777P	20020625 (60)
	US 2002-387292P	20020607 (60)
	US 2001-334301P	20011128 (60)
	US 2001-334233P	20011128 (60)

DOCUMENT TYPE: Utility
FILE SEGMENT: APPLICATION
LEGAL REPRESENTATIVE: MORGAN, LEWIS & BOCKIUS LLP, 1701 MARKET STREET, PHILADELPHIA, PA, 19103-2921
NUMBER OF CLAIMS: 115
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 497 Drawing Page(s)
LINE COUNT: 19355
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB The invention includes methods and compositions for remodeling a peptide molecule, including the addition or deletion of one or more glycosyl groups to a peptide, and/or the addition of a modifying group to a peptide.

L6 ANSWER 5 OF 23 USPATFULL on STN
ACCESSION NUMBER: 2004:150947 USPATFULL
TITLE: Interferon beta: remodeling and glycoconjugation of interferon beta
INVENTOR(S): DeFrees, Shawn, North Wales, PA, UNITED STATES
Zopf, David, Wayne, PA, UNITED STATES
Bayer, Robert, San Diego, CA, UNITED STATES
Bowe, Caryn, Doylestown, PA, UNITED STATES
Hakes, David, Willow Grove, PA, UNITED STATES
Chen, Xi, Lansdale, PA, UNITED STATES
PATENT ASSIGNEE(S): Neose Technologies, Inc. (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2004115168	A1	20040617
APPLICATION INFO.:	US 2003-410930	A1	20030409 (10)

RELATED APPLN. INFO.: Continuation-in-part of Ser. No. US 2003-360779, filed on 19 Feb 2003, PENDING Continuation-in-part of Ser. No. US 2003-360770, filed on 6 Jan 2003, PENDING

Continuation-in-part of Ser. No. US 2002-287994, filed on 5 Nov 2002, PENDING Continuation of Ser. No. WO 2002-US32263, filed on 9 Oct 2002, PENDING

	NUMBER	DATE
PRIORITY INFORMATION:	US 2002-407527P	20020828 (60)
	US 2002-404249P	20020816 (60)
	US 2002-396594P	20020717 (60)
	US 2002-391777P	20020625 (60)
	US 2002-387292P	20020607 (60)
	US 2001-334301P	20011128 (60)
	US 2001-334233P	20011128 (60)
	US 2001-344692P	20011019 (60)
	US 2001-328523P	20011010 (60)

DOCUMENT TYPE: Utility
FILE SEGMENT: APPLICATION
LEGAL REPRESENTATIVE: MORGAN, LEWIS & BOCKIUS LLP, 1701 MARKET STREET, PHILADELPHIA, PA, 19103-2921
NUMBER OF CLAIMS: 119
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 497 Drawing Page(s)
LINE COUNT: 19412
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The invention includes methods and compositions for remodeling a peptide molecule, including the addition or deletion of one or more glycosyl groups to a peptide, and/or the addition of a modifying group to a peptide.

L6 ANSWER 6 OF 23 USPATFULL on STN
ACCESSION NUMBER: 2004:107626 USPATFULL
TITLE: Interferon alpha: remodeling and glycoconjugation of interferon alpha
INVENTOR(S): DeFrees, Shawn, North Wales, PA, UNITED STATES
Zopf, David, Wayne, PA, UNITED STATES
Bayer, Robert, San Diego, CA, UNITED STATES
Bowe, Caryn, Doylestown, PA, UNITED STATES
Hakes, David, Willow Grove, PA, UNITED STATES
Chen, Xi, Lansdale, PA, UNITED STATES
PATENT ASSIGNEE(S): Neose Technologies, Inc. (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2004082026	A1	20040429
APPLICATION INFO.:	US 2003-411049	A1	20030409 (10)

RELATED APPLN. INFO.: Continuation-in-part of Ser. No. US 2003-360779, filed on 19 Feb 2003, PENDING Continuation-in-part of Ser. No. US 2003-360770, filed on 6 Jan 2003, PENDING Continuation-in-part of Ser. No. US 2002-287994, filed on 5 Nov 2002, PENDING Continuation of Ser. No. WO 2002-US32263, filed on 9 Oct 2002, PENDING

	NUMBER	DATE
PRIORITY INFORMATION:	US 2002-407527P	20020828 (60)
	US 2002-404249P	20020816 (60)
	US 2002-396594P	20020717 (60)
	US 2002-391777P	20020625 (60)
	US 2002-387292P	20020607 (60)
	US 2001-334301P	20011128 (60)
	US 2001-334233P	20011128 (60)
	US 2001-344692P	20011019 (60)
	US 2001-328523P	20011010 (60)

DOCUMENT TYPE: Utility
FILE SEGMENT: APPLICATION

LEGAL REPRESENTATIVE: MORGAN, LEWIS & BOCKIUS LLP, 1701 MARKET STREET, PHILADELPHIA, PA, 19103-2921
NUMBER OF CLAIMS: 126
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 497 Drawing Page(s)
LINE COUNT: 19445
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB The invention includes a multitude of methods and compositions for remodeling a peptide molecule, including the addition or deletion of one or more glycosyl groups to a peptide, and/or the addition of a modifying group to a peptide.

L6 ANSWER 7 OF 23 USPATFULL on STN
ACCESSION NUMBER: 2004:101966 USPATFULL
TITLE: Granulocyte colony stimulating factor: remodeling and glycoconjugation of G-CSF
INVENTOR(S): DeFrees, Shawn, North Wales, PA, UNITED STATES
Zopf, David, Wayne, PA, UNITED STATES
Bayer, Robert, San Diego, CA, UNITED STATES
Bowe, Caryn, Doylestown, PA, UNITED STATES
Hakes, David, Willow Grove, PA, UNITED STATES
Chen, Xi, Lansdale, PA, UNITED STATES
PATENT ASSIGNEE(S): Neose Technologies, Inc. (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2004077836	A1	20040422
APPLICATION INFO.:	US 2003-410962	A1	20030409 (10)

RELATED APPLN. INFO.: Continuation-in-part of Ser. No. US 2003-360779, filed on 19 Feb 2003, PENDING Continuation-in-part of Ser. No. US 2003-360770, filed on 6 Jan 2003, PENDING Continuation-in-part of Ser. No. US 2002-287994, filed on 5 Nov 2002, PENDING Continuation of Ser. No. WO 2002-US32263, filed on 9 Oct 2002, PENDING

	NUMBER	DATE
PRIORITY INFORMATION:	US 2002-407527P	20020828 (60)
	US 2002-404249P	20020816 (60)
	US 2002-396594P	20020717 (60)
	US 2002-391777P	20020625 (60)
	US 2002-387292P	20020607 (60)
	US 2001-334301P	20011128 (60)
	US 2001-334233P	20011128 (60)
	US 2001-344692P	20011019 (60)
	US 2001-328523P	20011010 (60)

DOCUMENT TYPE: Utility
FILE SEGMENT: APPLICATION
LEGAL REPRESENTATIVE: MORGAN, LEWIS & BOCKIUS LLP, 1701 MARKET STREET, PHILADELPHIA, PA, 19103-2921
NUMBER OF CLAIMS: 111
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 497 Drawing Page(s)
LINE COUNT: 19316
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB The invention includes methods and compositions for remodeling a peptide molecule, including the addition or deletion of one or more glycosyl groups to a peptide, and/or the addition of a modifying group to a peptide.

L6 ANSWER 8 OF 23 USPATFULL on STN
ACCESSION NUMBER: 2004:83455 USPATFULL
TITLE: Protein remodeling methods and proteins/peptides produced by the methods
INVENTOR(S): DeFrees, Shawn, North Wales, PA, UNITED STATES

Zopf, David, Wayne, PA, UNITED STATES
Bayer, Robert, San Diego, CA, UNITED STATES
Hakes, David, Willow Grove, PA, UNITED STATES
Chen, Xi, Lansdale, PA, UNITED STATES
PATENT ASSIGNEE(S): Neose Technologies, Inc. (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2004063911	A1	20040401
APPLICATION INFO.:	US 2003-411026	A1	20030409 (10)

RELATED APPLN. INFO.: Continuation-in-part of Ser. No. US 2003-360779, filed on 19 Feb 2003, PENDING Continuation-in-part of Ser. No. US 2003-360770, filed on 6 Jan 2003, PENDING Continuation-in-part of Ser. No. US 2002-287994, filed on 5 Nov 2002, PENDING Continuation of Ser. No. WO 2002-US32263, filed on 9 Oct 2002, PENDING

	NUMBER	DATE
PRIORITY INFORMATION:	US 2002-407527P	20020828 (60)
	US 2002-404249P	20020816 (60)
	US 2002-396594P	20020717 (60)
	US 2002-391777P	20020625 (60)
	US 2002-387292P	20020607 (60)
	US 2001-334301P	20011128 (60)
	US 2001-334233P	20011128 (60)
	US 2001-344692P	20011019 (60)
	US 2001-328523P	20011010 (60)

DOCUMENT TYPE: Utility
FILE SEGMENT: APPLICATION
LEGAL REPRESENTATIVE: MORGAN, LEWIS & BOCKIUS LLP, 1701 MARKET STREET, PHILADELPHIA, PA, 19103-2921
NUMBER OF CLAIMS: 39
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 497 Drawing Page(s)
LINE COUNT: 18872
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB The invention includes methods and compositions for remodeling a peptide molecule, including the addition or deletion of one or more glycosyl groups to a peptide, and/or the addition of a modifying group to a peptide.

L6 ANSWER 9 OF 23 USPATFULL on STN
ACCESSION NUMBER: 2004:57444 USPATFULL
TITLE: Alpha galalctosidase a: remodeling and glycoconjugation of alpha galactosidase A
INVENTOR(S): DeFrees, Shawn, North Wales, PA, UNITED STATES
Zopf, David, Wayne, PA, UNITED STATES
Bayer, Robert, San Diego, CA, UNITED STATES
Bowe, Caryn, Doylestown, PA, UNITED STATES
Hakes, David, Willow Grove, PA, UNITED STATES
Chen, Xi, Lansdale, PA, UNITED STATES
PATENT ASSIGNEE(S): Neose Technologies, Inc. (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2004043446	A1	20040304
APPLICATION INFO.:	US 2003-411037	A1	20030409 (10)

RELATED APPLN. INFO.: Continuation-in-part of Ser. No. WO 2002-US32263, filed on 9 Oct 2002, PENDING

	NUMBER	DATE
PRIORITY INFORMATION:	US 2002-407527P	20020828 (60)
	US 2002-404249P	20020816 (60)

	US 2002-396594P	20020717 (60)
	US 2002-391777P	20020625 (60)
	US 2002-387292P	20020607 (60)

DOCUMENT TYPE: Utility
FILE SEGMENT: APPLICATION
LEGAL REPRESENTATIVE: MORGAN, LEWIS & BOCKIUS LLP, 1701 MARKET STREET, PHILADELPHIA, PA, 19103-2921
NUMBER OF CLAIMS: 122
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 497 Drawing Page(s)
LINE COUNT: 19395
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The invention includes methods and compositions for remodeling a peptide molecule, including the addition or deletion of one or more glycosyl groups to a peptide, and/or the addition of a modifying group to a peptide.

L6 ANSWER 10 OF 23 USPATFULL on STN
ACCESSION NUMBER: 2003:265833 USPATFULL
TITLE: Methods of modulating functions of polypeptide GalNAc-transferases and of screening test substances to find agents herefor, pharmaceutical compositions comprising such agents and the use of such agents for preparing medicaments
INVENTOR(S): Clausen, Henrik, Holte, DENMARK
Bennett, Eric Paul, Lyngby, DENMARK
Hassan, Helle, Frederiksberg, DENMARK
Reis, Celso Albuquerque, Vila Nova de Gaia, PORTUGAL
PATENT ASSIGNEE(S): Glycozym ApS, Horsholm, DENMARK (non-U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2003186850	A1	20031002
APPLICATION INFO.:	US 2002-292896	A1	20021112 (10)

RELATED APPLN. INFO.: Continuation-in-part of Ser. No. WO 2001-DK328, filed on 10 May 2001, UNKNOWN

	NUMBER	DATE
PRIORITY INFORMATION:	US 2002-425204P	20021108 (60)
	US 2000-203331P	20000511 (60)

DOCUMENT TYPE: Utility
FILE SEGMENT: APPLICATION
LEGAL REPRESENTATIVE: DARBY & DARBY P.C., P. O. BOX 5257, NEW YORK, NY, 10150-5257
NUMBER OF CLAIMS: 68
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 18 Drawing Page(s)
LINE COUNT: 4417
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB Attachment of O-glycans to proteins is controlled by a large family of homologous polypeptide GalNAc-transferases. Polypeptide GalNAc-transferases contain a C-terminal sequence with similarity to lectins. This invention discloses that the putative lectin domains of GalNAc-transferase isoforms, GalNAc-T4, -T7, -T2, and -T3, are functional and recognize carbohydrates, glycopeptides, and peptides and discloses the lectin domains of GalNAc-T1-T16. These lectin domains have different binding specificities and modulate the functions of GalNAc-transferase isoforms differently. Novel methods for identification of inhibitors or modulators of binding activities mediated by lectin domains of polypeptide GalNAc-transferases are disclosed. Direct binding activity of GalNAc-transferase lectins has been demonstrated for the first time and methods to measure lectin mediated binding of isolated lectins or enzymes with lectin domains are disclosed. The present invention specifically discloses a novel

selective inhibitor of polypeptide GalNAc-transferase lectin domains, which provides a major advancement in that this inhibitor and related inhibitors sharing common characteristics of activity bind lectin domains without serving as acceptor substrate for glycosyltransferases involved in synthesis of O-glycans. This inhibitor is represented by the β-anomeric configuration of GalNAc-benzyl, GalNAcβ-benzyl. Methods for inhibiting intracellular transport, cell surface expression, and secretion of mucins and O-glycosylated glycoproteins without affecting O-glycosylation processing are disclosed using the novel selective inhibitor identified.

L6 ANSWER 11 OF 23 USPATFULL on STN

ACCESSION NUMBER:	2003:265399 USPATFULL
TITLE:	Nucleic acid that encodes a fusion protein
INVENTOR(S):	Gilbert, Michel, Hull, CANADA Young, N. Martin, Gloucester, CANADA Wakarchuk, Warren W., Gloucester, CANADA
PATENT ASSIGNEE(S):	National Research Council of Canada, Ottawa, CANADA, K1A0R6 (non-U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2003186414	A1	20031002
APPLICATION INFO.:	US 2002-317428	A1	20021211 (10)

RELATED APPLN. INFO.: Division of Ser. No. US 1998-211691, filed on 14 Dec 1998, PENDING

	NUMBER	DATE
PRIORITY INFORMATION:	US 1997-69443P	19971215 (60)

DOCUMENT TYPE:	Utility
FILE SEGMENT:	APPLICATION
LEGAL REPRESENTATIVE:	TOWNSEND AND TOWNSEND AND CREW, LLP, TWO EMBARCADERO CENTER, EIGHTH FLOOR, SAN FRANCISCO, CA, 94111-3834
NUMBER OF CLAIMS:	35
EXEMPLARY CLAIM:	1
NUMBER OF DRAWINGS:	4 Drawing Page(s)
LINE COUNT:	2369

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB This invention provides fusion polypeptides that include a glycosyltransferase catalytic domain and a catalytic domain from an accessory enzyme that is involved in making a substrate for a glycosyltransferase reaction. Nucleic acids that encode the fusion polypeptides are also provided, as are host cells for expressing the fusion polypeptides of the invention.

L6 ANSWER 12 OF 23 USPATFULL on STN

ACCESSION NUMBER:	2003:257877 USPATFULL
TITLE:	Fusion protein comprising a UDP-Galnac 4' epimerase and a galnac transferase
INVENTOR(S):	Gilbert, Michel, Hull, CANADA Young, N. Martin, Gloucester, CANADA Wakarchuk, Warren W., Gloucester, CANADA
PATENT ASSIGNEE(S):	National Research Council of Canada, Ottawa, CANADA, K1A0R6 (non-U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2003180928	A1	20030925
APPLICATION INFO.:	US 2002-317773	A1	20021211 (10)

RELATED APPLN. INFO.: Division of Ser. No. US 1998-211691, filed on 14 Dec 1998, PENDING

	NUMBER	DATE

L16 ANSWER 30 OF 37 USPATFULL on STN
ACCESSION NUMBER: 2001:142130 USPATFULL
TITLE: **Sialyltransferases**
INVENTOR(S): Kapitonov, Dmitri, 1327 Spruce St., Apt. 5E, Philadelphia, PA, United States 19107
Yu, Robert K., 306 Cheswick, Richmond, VA, United States 23229

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6280989	B1	20010828
APPLICATION INFO.:	US 1999-334601		19990617 (9)

DOCUMENT TYPE: Utility
FILE SEGMENT: GRANTED
PRIMARY EXAMINER: Patterson, Jr., Charles L.
LEGAL REPRESENTATIVE: Millen White Zelano & Branigan
NUMBER OF CLAIMS: 13
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 26 Drawing Figure(s); 24 Drawing Page(s)
LINE COUNT: 2057
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB The present invention relates to **isolated sialyltransferases**, such as human or mouse GM3 synthase, human or mouse 4ST3GalVI, or human 7STGalNAcV **sialyltransferase** polypeptide, biologically-active polypeptide fragments thereof, and nucleic acids which code for it. This polypeptide has various activities including **sialyltransferase** activity. The invention relates to all aspects of **sialyltransferase**, or homologs thereof, including assays for modulators, activators, ligands, etc. The invention also relates to **sialyltransferases** expressed in cells and methods of using such cells to engineer specific sugar chains.

L16 ANSWER 31 OF 37 CAPLUS COPYRIGHT 2004 ACS on STN DUPLICATE 2
ACCESSION NUMBER: 2000:193716 CAPLUS
DOCUMENT NUMBER: 133:102935
TITLE: Altered mRNA expression of glycosyltransferases in human colorectal carcinomas and liver metastases
AUTHOR(S): Petretti, T.; Kemmner, W.; Schulze, B.; Schlag, P. M.
CORPORATE SOURCE: Department of Surgery and Surgical Oncology, Robert-Rossle-Klinik at the Max Delbruck Centre for Molecular Medicine, Berlin, 13125, Germany
SOURCE: Gut (2000), 46(3), 359-366
CODEN: GUTTAK; ISSN: 0017-5749
PUBLISHER: BMJ Publishing Group
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Biosynthesis of carbohydrate structures is tissue specific and developmentally regulated by glycosyl-transferases such as fucosyltransferases, **sialyltransferases**, and N-acetylglucosaminyltransferases. During carcinogenesis, aberrant glycosylation leads to the development of tumor subpopulations with different adhesion properties. Therefore alterations in glycosyltransferase mRNA expression in colorectal carcinomas were examined by semiquant. reverse transcription-polymerase chain reaction (RT-PCR). Colorectal carcinoma specimens were classified and characterized according to the WHO/UICC system. Expression of fucosyltransferases FT-I, FT-III, FT-IV, FT-V, FT-VI, and FT-VII, **sialyltransferases ST3Gal-I**, ST3Gal-III, ST3Gal-IV, and ST6Gal-I, β1,4-galactosyltransferase, and β1,6-Acetylglucosaminyltransferase V (GNT-V) was screened simultaneously in exts. of 22 homogenized tumor specimens by RT-PCR and compared with corresponding mucosa from each patient. Also 12 adenomas and 17 liver metastases of colorectal carcinomas were examined GNT-V expression was

enhanced in colorectal adenomas (p = 0.039), carcinomas (p<0.001), and liver metastases of colorectal carcinomas (p<0.001). Also, expression of fucosyltransferase FT-IV was increased in colorectal adenomas (p = 0.039) and carcinomas (p<0.001). In addition, fucosyltransferase FT-I (p<0.001) and **sialyltransferases** ST6Gal-I (p = 0.004) and ST3Gal-III (p = 0.001) showed increased expression in carcinoma specimens. On the other hand, fucosyltransferase FT-III was less abundantly expressed in carcinomas exhibiting distant metastases (p = 0.046) and in highly invasive tumors (p = 0.041). Glycosyltransferase mRNA expression is significantly altered in colorectal adenomas and carcinomas **isolated** from surgical specimens. RT-PCR determination of specific glycosyltransferases may be helpful for earlier detection of carcinomas and for tumor prognosis.

REFERENCE COUNT: 55 THERE ARE 55 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L16 ANSWER 32 OF 37 MEDLINE on STN DUPLICATE 3
ACCESSION NUMBER: 2000386324 MEDLINE
DOCUMENT NUMBER: PubMed ID: 10894948
TITLE: Comparison of genomic structures of four members of beta-galactoside alpha2,3-**sialyltransferase** genes in the mouse.
AUTHOR: Takashima S; Tsuji S
CORPORATE SOURCE: Molecular Glycobiology, Frontier Research Program, The Institute of Physical and Chemical Research (RIKEN), Wako, Saitama, Japan.
SOURCE: Cytogenetics and cell genetics, (2000) 89 (1-2) 101-6. Journal code: 0367735. ISSN: 0301-0171.
PUB. COUNTRY: Switzerland
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 200008
ENTRY DATE: Entered STN: 20000818
Last Updated on STN: 20000818
Entered Medline: 20000809

AB The mouse genes encoding beta-galactoside alpha2, 3-**sialyltransferases**-Siat4 (**ST3Gal I**), Siat5 (ST3Gal II), Siat3 (ST3Gal III), and Siat4c (ST3Gal IV)-were **isolated** and characterized. Siat4 and Siat5 comprise 8.4 and 14 kb, respectively, and are composed of six exons each. The genomic structures of the two genes were similar. Siat3 and Siat4c comprise over 100 and 9.7 kb, respectively, and are composed of 12 and 10 exons, respectively. Although the genomic sizes of these genes differ, some of their exon structures are significantly similar. These results suggest that the gene pair Siat4 and Siat5 arose from a common ancestral gene, as did the two genes Siat3 and Siat4c.

L16 ANSWER 33 OF 37 CAPLUS
ACCESSION NUMBER: 1997:386065 CAPLUS
DOCUMENT NUMBER: 127:118870
TITLE: Mouse β-galactoside α2,3-**sialyltransferases**: comparison of in vitro substrate specificities and tissue specific expression
AUTHOR(S): Kono, Mari; Ohyama, Yuji; Lee, Young-Choon; Hamamoto, Toshiro; Kojima, Naoya; Tsuji, Shuichi
CORPORATE SOURCE: Molecular Glycobiology, Frontier Research Program, The Institute of Physical and Chemical Research (RIKEN), Wako, Saitama, 351-01, Japan
SOURCE: Glycobiology (1997), 7(4), 469-479
CODEN: GLYCE3; ISSN: 0959-6658
PUBLISHER: Oxford University Press
DOCUMENT TYPE: Journal

LANGUAGE: English

AB Four types of β-galactoside α2,3- **sialyltransferase** (**ST3Gal I**-IV) have been cloned from several animals, but some contradictory observations regarding their substrate specificities and expression have been reported. Therefore, it is necessary to concurrently analyze the substrate specificities of the four enzymes, of which the source should be one animal. Accordingly, the acceptor substrate specificities and gene expression of mST3Gal I-IV were analyzed. Since the authors had already cloned **ST3Gal I** and II, as previously reported (Lee, Y.-C. et al., Eur. J. Biochem., 216, 377-385 (1993); J. Biol. Chemical, 269, 10028-10033 (1994)), the cDNAs of ST3Gal III and IV were cloned from mouse cDNA libraries. Each of the four enzymes was expressed in COS-7 cells as a recombinant enzyme fused with protein A, and applied on an IgG-Sepharose gel to eliminate endogenous **sialyltransferase** activity. **ST3Gal I** and II showed the highest activity toward Galβ1,3GalNAc (type III), very low activity toward Galβ1,3-GlcNAc (type I), but none toward Galβ1,4GlcNAc (type II). ST3Gal III and IV exhibited high activity toward the type III one. On the other hand, asialo-GM1 (Gg4Cer) was as good a substrate for **ST3Gal I** and II as the type III disaccharide, though ST3Gal III and IV hardly utilized glycolipids as substrates, as indicated by in vitro expts. Northern blot anal. revealed that enzymes of the ST3Gal-family are expressed mainly in a tissue-specific manner. The **ST3Gal I** gene was strongly expressed in spleen and salivary gland, and weakly in brain, liver, heart, kidney, and thymus. The ST3Gal II gene was strongly expressed in brain, and weakly in colon, thymus, salivary gland, and testis, and developmentally expressed in liver, heart, kidney, and spleen. The ST3Gal III and IV genes were expressed in a wide variety of tissues. These differences in tissue specific expression suggest the expression of each ST3Gal influences the distribution of sialyl-glycoconjugates in vivo.

REFERENCE COUNT: 34 THERE ARE 34 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L16 ANSWER 34 OF 37 CAPLUS COPYRIGHT 2004 ACS on STN DUPLICATE 4

ACCESSION NUMBER: 1996:706050 CAPLUS

DOCUMENT NUMBER: 126:1949

TITLE: An efficient expression vector for extracellular secretion in mammalian cells

AUTHOR(S): Lee, Young-Choon; Kim, Cheorl-Ho; Tsuji, Shuichi

CORPORATE SOURCE: Division Molecular Glycobiology, Korea Reseach Institute Bioscience Biotechnology, Taejon, 305-600, S. Korea

SOURCE: Molecules and Cells (1996), 6(5), 552-556
CODEN: MOCEEK; ISSN: 1016-8478

PUBLISHER: Korean Society of Molecular Biology

DOCUMENT TYPE: Journal

LANGUAGE: English

AB An expression-secretion vector for mammalian cells, pcDSA, which expresses a cloned gene under the control of the SRα promoter (SV40 promoter/enhancer and HTLV-1 LTR) has been newly constructed. This vector contains fragments encoding the 5' untranslated leader sequence from AMV RNA4, the signal peptide of mouse IgM and IgG-binding domain of protein A in front of cloning sites. Joining in-frame a cDNA fragment with cloning sites just downstream of the COOH terminus of the IgG-binding domain of protein A enables the cDNA product to be secreted as a protein fused with that domain. This allows an easy **isolation** of its secreted product by affinity chromatog. on IgG-Sepharose. When the genes encoding the catalytic domains of mammalian **sialyltransferase** (**ST3Gal I**) were cloned into the vector plasmid and then transfected into COS-7 cells, active **ST3Gal I** was efficiently secreted into the culture medium. It was rapidly **purified** almost to homogeneity by one-step IgG-Sepharose affinity chromatog.

L16 ANSWER 35 OF 37 CAPLUS COPYRIGHT 2004 ACS on STN DUPLICATE 5
ACCESSION NUMBER: 1995:642411 CAPLUS
DOCUMENT NUMBER: 123:333367
TITLE: Molecular cloning and expression of chick Galβ1,3GalNAc α2,3-**sialyltransferase**
AUTHOR(S): Kurosawa, Nobuyuki; Hamamoto, Toshiro; Inoue, Mio; Tsuji, Shuichi
CORPORATE SOURCE: Mol. Glycobiol., Inst. Physical Chem. Res., Saitama, 351-01, Japan
SOURCE: Biochimica et Biophysica Acta (1995), 1244(1), 216-22
CODEN: BBACAQ; ISSN: 0006-3002
PUBLISHER: Elsevier
DOCUMENT TYPE: Journal
LANGUAGE: English
AB A cDNA **clone** encoding chick Gal β 1,3GalNAc α2,3-**sialyltransferase** (**ST3Gal I**) was **isolated** from a chick embryo brain cDNA library. The cDNA sequence included an open reading frame coding for 342 amino acids, and the deduced amino acid sequence showed 64% identity with that of the mouse enzyme. Northern blot anal. of chick embryos revealed that the STS3Gal I gene was expressed in early embryonic stages. The identity of the enzyme was confirmed by construction of a recombinant **sialyltransferase** in which the N-terminal part including the cytoplasmic tail and signal anchor domain was replaced with an Ig signal peptide sequence. This enzyme expressed in COS-7 cells exhibited transferase activity similar to that of mouse **ST3Gal I.**

L16 ANSWER 36 OF 37 SCISEARCH COPYRIGHT (c) 2004 The Thomson Corporation. on STN
ACCESSION NUMBER: 95:385245 SCISEARCH
THE GENUINE ARTICLE: RA633
TITLE: MOLECULAR-CLONING AND EXPRESSION OF CHICK GAL-BETA-1,3GALNAC ALPHA-2,3-**SIALYLTRANSFERASE**
AUTHOR: KUROSAWA N; HAMAMOTO T; INOUE M; TSUJI S (Reprint)
CORPORATE SOURCE: INST PHYS & CHEM RES, FRONTIER RES PROGRAM, WAKO, SAITAMA 35101, JAPAN (Reprint); INST PHYS & CHEM RES, FRONTIER RES PROGRAM, WAKO, SAITAMA 35101, JAPAN
COUNTRY OF AUTHOR: JAPAN
SOURCE: BIOCHIMICA ET BIOPHYSICA ACTA-GENERAL SUBJECTS, (11 MAY 1995) Vol. 1244, No. 1, pp. 216-222.
ISSN: 0304-4165.
DOCUMENT TYPE: Article; Journal
FILE SEGMENT: LIFE
LANGUAGE: ENGLISH
REFERENCE COUNT: 36
ABSTRACT IS AVAILABLE IN THE ALL AND IALL FORMATS
AB A cDNA **clone** encoding chick Gal beta 1,3GalNAc alpha 2,3-**sialyltransferase** (**ST3Gal I**) was **isolated** from a chick embryo brain cDNA library. The cDNA sequence included an open reading frame coding for 342 amino acids, and the deduced amino acid sequence showed 64% identity with that of the mouse enzyme. Northern blot analysis of chick embryos revealed that the **ST3Gal I** gene was expressed in early embryonic stages. The identity of the enzyme was confirmed by construction of a recombinant **sialyltransferase** in which the N-terminal part including the cytoplasmic tail and signal anchor domain was replaced with an immunoglobulin signal peptide sequence. This enzyme expressed in COS-7 cells exhibited transferase activity similar to that of mouse **ST3Gal I.**

L16 ANSWER 37 OF 37 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1995:552389 CAPLUS

DOCUMENT NUMBER: 123:48837
TITLE: β-Galactoside α2,3-**sialyltransferases**: Characterization of the cloned two types of Galβ1,3GalNAc α2,3-**sialyltransferase**
AUTHOR(S): Lee, Young-Choon
CORPORATE SOURCE: Frontier Research Program, RIKEN, Japan
SOURCE: RIKEN Review (1995), 8, 17-18
CODEN: RIREE6; ISSN: 0919-3405
DOCUMENT TYPE: Journal
LANGUAGE: English

AB CDNAs encoding four kinds of β-galactoside α2,3-**sialyltransferases** have so far been **isolated** from various species or tissues. They have a putative domain structure consisting of four regions, like that in other glycosyltransferases, and exhibit tissue-specific expression. These enzymes expressed in mammalian cell lines exhibited strict acceptor substrate specificities. Recently, we have cloned two kinds of cDNA encoding mouse brain Galβ1,3GalNAc α2,3- **sialyltransferases** (**ST3Gal I** and II) showing a clear difference in acceptor substrate preference.

L16 ANSWER 34 OF 37 CAPLUS COPYRIGHT 2004 ACS on STN DUPLICATE 4

ACCESSION NUMBER: 1996:706050 CAPLUS
DOCUMENT NUMBER: 126:1949
TITLE: An efficient expression vector for extracellular secretion in mammalian cells
AUTHOR(S): Lee, Young-Choon; Kim, Cheorl-Ho; Tsuji, Shuichi
CORPORATE SOURCE: Division Molecular Glycobiology, Korea Reseach Institute Bioscience Biotechnology, Taejon, 305-600, S. Korea
SOURCE: Molecules and Cells (1996), 6(5), 552-556
CODEN: MOCEEK; ISSN: 1016-8478
PUBLISHER: Korean Society of Molecular Biology
DOCUMENT TYPE: Journal
LANGUAGE: English

AB An expression-secretion vector for mammalian cells, pcDSA, which expresses a cloned gene under the control of the SRα promoter (SV40 promoter/enhancer and HTLV-1 LTR) has been newly constructed. This vector contains fragments encoding the 5' untranslated leader sequence from AMV RNA4, the signal peptide of mouse IgM and IgG-binding domain of protein A in front of cloning sites. Joining in-frame a cDNA fragment with cloning sites just downstream of the COOH terminus of the IgG-binding domain of protein A enables the cDNA product to be secreted as a protein fused with that domain. This allows an easy **isolation** of its secreted product by affinity chromatog. on IgG-Sepharose. When the genes encoding the catalytic domains of mammalian **sialyltransferase** (**ST3Gal I**) were cloned into the vector plasmid and then transfected into COS-7 cells, active **ST3Gal I** was efficiently secreted into the culture medium. It was rapidly **purified** almost to homogeneity by one-step IgG-Sepharose affinity chromatog.